The Harvard School of Dental Medicine General Information and Admission Procedures

1983–1984

The Harvard School of Dental Medicine offers both predoctoral and postdoctoral courses in dentistry. The predoctoral course leads to the D.M.D. degree. Postdoctoral courses are offered in every specialty area and may be combined with a number of degree programs. All courses are fully accredited by the American Dental Association.

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General Information and Admission Procedures

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GENERAL INFORMATION

The Harvard School of Dental Medicine, established in 1867 as the Harvard Dental School, was the first university-based dental school in the country. From its inception, it has been closely affiliated with the Harvard Medical School, which has been in existence since 1782.

The School of Dental Medicine sees as its goal the education of men and women who will assume leadership roles in dentistry and other health sciences. Graduates of the School in recent years have entered clinical specialties, teaching and research, public health, as well as the general practice of dentistry.

Starting with the class that entered in 1979 a five-year program was inaugurated in order to add an extra dimension beyond the previous training in basic science and clinical dentistry. The new program is designed to prepare scholars who, in addition to being outstanding clinicians, can develop and teach the new biomedical knowledge needed in dentistry; interact effectively with their medical colleagues in hospitals and other systems of comprehensive health care; and represent dentistry ably in the public policy debates and decisions which are shaping the future of the profession. It is clearly intended for the applicant who possesses a high degree of commitment to a leadership role in the profession.

The current program incorporates the previous four-year program and augments it with an additional year. The fifth year will be spent either in biomedical research or studies in health care delivery. Both tracks include course work and a research thesis. Students who enter a three-year Harvard postdoctoral training program may begin it during the fifth year and carry out their research during the course of the program. Because the Oral Surgery program is entirely clinical, it is not possible to begin it during the fifth year.

The Biomedical Research Track focuses on either basic or clinical research with particular emphasis on the etiology, prevention and therapy of oral diseases. Students take courses at the Harvard School of Dental Medicine and may also take courses at other Harvard graduate schools and affiliated institutions.

The Health Care Delivery and Research Track focuses on the organization, financing and delivery of public and private health services, with particular emphasis on prevention and the implications for health care policy. Students electing the Health Care Track can study at other graduate schools at Harvard and, if accepted, take courses toward degrees in Public Health, Public Policy, or Business Administration.

The course work and research in either the Biomedical Research Track or the Health Care Delivery and Research Track would be applicable to the non-clinical requirements in the Harvard School of Dental Medicine's postdoctoral programs in Orthodontics, Oral Pathology, Pedodontics, Periodontics, Prosthodontics, Endodontics, Dental Public Health and General Dentistry. The research period might also be applied toward a degree in a basic science discipline. For those planning careers in hospital dentistry or medical centers, the five-year predoctoral program may be followed by or integrated with advanced training in one of the dental specialties or general dentistry and, subsequently, by courses leading to the M.D. degree at the Harvard Medical School.

The five-year curriculum provides the student with: (1) a firm foundation in the basic health and pre-clinical sciences; (2) skills and knowledge of diagnosis, prevention and therapy in clinical dentistry; (3) clinical experiences in hospitals and health centers; and (4) opportunities to pursue areas of special interest in biomedical research or health care delivery.

The first year-and-a-half is spent at the Harvard Medical School in studies of the basic sciences common to medicine and dentistry in an integrated program with medical students. Also during this period courses basic to oral science are given at the School of Dental Medicine. The fourth semester begins the clinical experience which is divided between: (1) Introduction to Clinical Medicine in which students obtain experience in physical diagnosis (examination of the patient) and in clinical medicine at the affiliated Harvard teaching hospitals together with the Harvard medical students, and (2) course work in clinical dentistry. In June of the second year, the Major Clinical Dentistry Period begins full time and continues through July of the third year. During this period, students learn the theory and fundamentals of clinical dentistry at the Dental School.

The Externship Period follows the Major Clinical Dentistry Period and runs from August through February of the fourth year. The final four months of the fourth year constitute the Elective Period. The fifth year is eleven months long, running from July through May.

The learning resources available to dental students include educational opportunities throughout Harvard University and its collaborating institutions, such as the Massachusetts Institute of Technology, as well as the affiliated teaching hospitals and neighborhood health centers. The Francis A. Countway Library of Medicine contains a superb collection (over nine million volumes) of medical and dental texts and journals. The school has extensive audio-visual and self-instructional equipment, such as closed circuit color television and film and video cassette play-back units. The favorable instructor-student ratio and the small class size permit the student to advance rapidly and to have close contact with faculty members.

THE CURRICULUM

The curriculum is divided into six major areas: the Basic Medical Science Core (sixteen months); the Introduction to Clinical Medicine (ICM) (four months); the Major Clinical Dentistry Period (MCD) (seventeen months); the Externship Period (seven months); the Elective Period (three months); and the Biomedical Research or Health Care Delivery and Research Track (eleven months). These periods are consecutive except for the ICM which runs concurrently with the first four months of the MCD Period. Each area is described below.

Basic Science Core

In simplest terms, the philosophy of dental education at Harvard is that dentistry is a specialty of medicine. In keeping with this belief, the present core curriculum was designed to allow medical and dental students to study the preclinical basic sciences together. The Harvard Medical School's core curriculum in the preclinical sciences is a rigorous, well-balanced introduction to medicine which provides the student with a firm background in the fundamentals of cellular structures and functions before delving

into the intricacies of human biology and pathophysiology. Successful completion of this one-and-a-half-year long curriculum ensures the future dental clinician a firm biological basis for understanding complicated medical conditions which patients may present. As a medical specialist, the dentist is part of the health care team; knowledge of the anatomy and physiology of the mouth alone will not suffice the dental practitioner who hopes to comprehend the biological basis for the etiology and treatment of oral and systemic disease.

In order to introduce the dental student to concepts in oral health during the Basic Science Core, a two-part program has been established. Part I is a course in Introduction to Dentistry, which is taken by all first-year students as a required part of the curriculum. The course is designed to introduce students to some aspects of dentistry, oral diseases, disease prevention, the history of dentistry and dental specialties. A course in biostatistics and epidemiology helps to prepare the student to evaluate critically the research literature.

Part II is a course in Oral Biology. The subject matter of this course is correlated with the basic science areas taught in the Medical School.

A course schedule for the Basic Science Core is presented on pages 12 and 13.

Introduction to Clinical Medicine

Introduction to Clinical Medicine (ICM) is taken with medical students at one of the Harvard affiliated teaching hospitals. This course introduces the student to the art of interacting with patients and establishing the close relationships necessary to achieve effective diagnosis and treatment. The first part of the course provides instruction in the basic techniques of interviewing and examining patients. The second part is devoted to the methodology of problem solving; how and when to use particular skills and how to adapt techniques of problem solving to specific clinical problems. Information about individual diseases is inevitably accumulated as the course proceeds. It is not the intent of the course, however, to survey clinical medicine or various diseases in a systematic manner. This course is held three days per week during the fourth semester.

Major Clinical Dentistry Period

The Major Clinical Dentistry Period (17 months) for dental students begins in the middle of the second year of study and is taught almost exclusively at the Dental School. The first segment runs concurrently with the Introduction to Clinical Medicine on the days that ICM is not given. During the months of June and July and continuing through semesters five and six, clinical training is full time in the Dental School, and the student is expected to master the fundamentals of clinical dental care. Material is presented in the form of lectures, seminars, demonstrations and individual chairside instruction. In addition, some self-instructional material has been developed and is available to students.

A course schedule for ICM and the MCD periods is presented on pages 13 and 14.

Externship Period

After the student has mastered the basic didactic material and clinical skills required in general dentistry, he or she is provided with the opportunity to practice dentistry outside the dental school environment and to learn how dental health care is integrated with total health care delivery. During the Externship Period, the student participates in patient care activities at the Dental Department of the Children's Hospital Medical Center (four weeks), the Oral Surgery Department of the Massachusetts General Hospital (four weeks), at the Dental Department of one of five affiliated Veterans Administration Hospitals (twelve weeks), at a neighborhood health center (two weeks) and at the Dental School in Dental Management and Advanced Restorative Dentistry (four weeks). Ample opportunity thus exists for the student to reinforce his skills in general dentistry. Students also return to the Harvard School of Dental Medicine one day per week for the Comprehensive Care Clinic during which time students are able to continue to treat and follow their patients and take on new patients.

The Externship Period follows MCD and runs from August of year 3 into February of year 4 as illustrated on page 14.

Elective Period

During the second semester of the fourth year approximately three months are available for elective courses or programs for

students who have completed all clinical and didactic requirements. The program selection is made in conjunction with a faculty advisor and the Office of Student Affairs, with appropriate input from the Curriculum Committee's Subcommittee on Electives. Examples of recent fourth year electives are: anesthesia, dental care administration, dermatology, exchange programs (foreign or domestic), general dentistry (in several sites), oral pathology, oral surgery, otolaryngology, pediatric dentistry, pediatric oral surgery and research.

Educational Tracks of Fifth Year

Health Care Delivery and Research Track: The Health Care Delivery and Research Track of the five-year curriculum is designed to prepare dentists who, in addition to being well trained clinicians with a broad biomedical knowledge base, can assume leadership roles in preventive dentistry, health administration, and public policy. Training in the Health Care Delivery and Research Track will be done in consultation with the Department of Dental Care Administration, and will consist of appropriate courses which may, if the student gains admission, be selected from the School of Public Health, the Kennedy School of Government, the School of Business Adminstration, and the School of Dental Medicine. An acceptable research thesis related to health care delivery issues is required.

Biomedical Research Track: The Biomedical Research Track of the predoctoral five-year curriculum is designed to prepare dentists who, in addition to being well trained clinicians with a broad biomedical knowledge base, can design, conduct, evaluate and make original contributions to biomedical research. Research training will be done under the direction of a research sponsor, and may include a few appropriate courses from Faculties throughout the University.

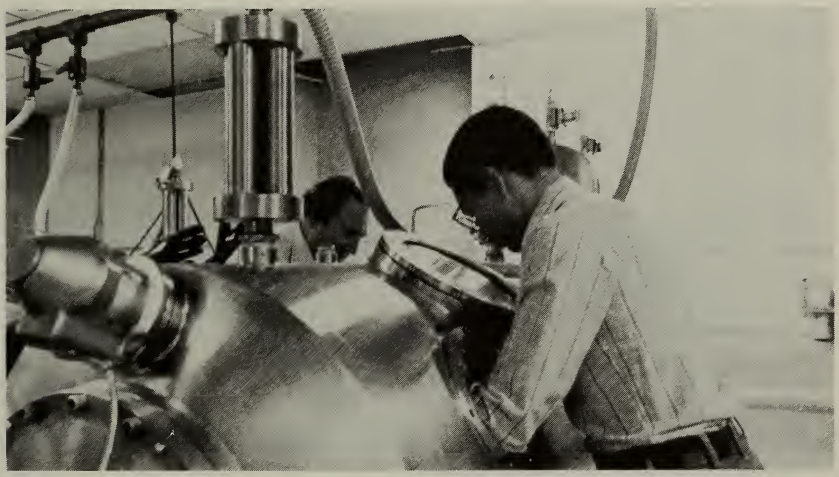
For those students who plan on continuing their postdoctoral studies at the Harvard School of Dental Medicine, the fifth year in either track can be designed as part of a continuum with the postdoctoral studies (except for Oral Surgery). Postdoctoral programs include advanced training in either Orthodontics, Oral Pathology, Pedodontics, Periodontology, Prosthodontics, Oral Medicine, Endodontics, Dental Public Health, or General Dentistry. (See page 11 for potential fellowship opportunities to support the fifth predoctoral and subsequent postdoctoral years.) They may be combined with studies leading to a degree in Public Health, Public Policy, Business Administration, or Biomedical Research. These

may be followed by a program leading to the M.D. degree and an appropriate medical internship. All degree programs offered by other graduate schools of the University require admission by those schools.

Research

The Harvard School of Dental Medicine considers the generation of new knowledge to be an integral part of the training of future leaders in Dentistry. In recognition of this goal, each student is required to complete two research projects and theses and defend them prior to graduation.

Research is carried out in a variety of biomedical, behavioral and clinical areas and encompasses a wide range of research methods. Orientation sessions are held during the first year to assist students in their selection of a project advisor in an area of interest.



National Board Examinations

The National Dental Board Examinations, Parts I and II, must be passed by all students prior to graduation. The exams are given several times each year. Part I: Basic Sciences, is usually taken at the end of the second year. Part II: Clinical Sciences, is usually taken during the fourth year.

In addition to the Dental Boards, Harvard students are required to pass the National Board of Medical Examiner's Subject Examinations on the Basic Sciences. These examinations are taken at the

end of the second year and are required for entrance into a combined M.D.-specialty program at the Harvard Medical School.

It is also recommended that the Northeast Regional Board Examinations, which confer eligibility for licensure in 15 states, be taken at the end of the fourth year. (See page 11.)

Changes in Curriculum, Fees and Tuition

It should be noted that the faculty reserves the right to modify the curriculum at any time, whenever it deems that such modification would be desirable and necessary to improve the quality of education and to conform with the accreditation policies of the Commission on Accreditation. Tuition and fees are subject to change annually.

REQUIREMENTS FOR ADMISSION

Listed below are the recommended college credits necessary to insure adequate preparation for graduate study and to meet present legal requirements of state licensing boards.

Biology: One year of biology which includes adequate laboratory work is required. The combination of one semester of zoology and one semester of botany is acceptable. A satisfactory course must show college credits of approximately eight semester hours.

Chemistry: The student should acquire a sound understanding of the basic principles of chemistry, both inorganic and organic. At least eight semester hours of inorganic chemistry and eight hours of organic chemistry are required.

Physics: The student should acquire an understanding of the general principles of physical laws and phenomena including mechanics, heat, light, sound and electricity. College credit for eight semester hours is required.

English: One year or the equivalent at the college level is required. It is recommended that this include English composition.

Mathematics: A one-year course in calculus is required unless it has been taken in high school.

It is also recommended that students have at least two or three advanced science courses such as biochemistry, physiology, comparative anatomy, genetics, etc. Study of the social and behavioral sciences, the arts and humanities and a foreign language such as Spanish may also increase the student's awareness of the world in which he or she lives, and thus, enhance the ability to practice modern dentistry.

The Dental Admission Test: The DAT is given twice a year — April and October. Performance on the DAT is best when taken soon after completion of the required science courses. For most students this would be April of the junior year. It is recommended that the test be taken before the senior year to allow for re-taking, if necessary. Applications may be secured from the Division of Educational Measurements, Council of Dental Education, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611.

APPLICATION, SELECTION, AND ACCEPTANCE PROCEDURES

(1) Harvard participates in the American Association of Dental Schools' Application Service and all applications should be made through this service. The address is: AADSAS, P.O. Box 4000, Iowa City, Iowa 52240. As soon as possible after sending the appropriate materials to the Service, each applicant should submit directly to the Harvard School of Dental Medicine an application fee of $40, official high school and college transcripts, SAT or ACT scores, letters of recommendation from the undergraduate school's predental advisory committee (if none exists at the school, then from at least two senior science professors) and Dental Admission Test scores.

(2) The selection of students is based on a total appraisal of the suitability of the candidates for the program at Harvard. Factors such as the academic achievement in high school and college, performance on the Dental Admission Test, letters of evaluation and personal qualities are weighed in the decision. All decisions are made by the Admissions Committee which includes representation from junior and senior faculty, clinical and basic science faculty, predoctoral and postdoctoral students, women and minorities.

(3) Selection of students is made without restriction based on race, sex, religion, financial resources or residence. Harvard does not discriminate on the basis of handicap. Consistent with Harvard's Affirmative Action Program, women and minorities are encouraged to apply.

(4) Students are urged to apply well before the deadline, preferably from June to September. Personal interviews will be scheduled at the discretion of the Admissions Committee.

FEES AND EXPENSES

The fees for the academic year 1982-1983 are: matriculation — $25; health service — $539 single, $1,454 married; tuition — $10,-250 (excluding microscope rental, purchase of dental instruments and supplies, breakage, damage and loss of apparatus).

Tuition will be charged by the term, in two installments.

A limited number of microscopes are available for rental to first- and second-year students at $190 per year or $125 per semester.

Dental students will be required to purchase approximately $1,-000 worth of dental instruments during their second year. In addition, fees of $1,500, $1,950, and $700 will be charged for clinic usage fees during the second, third, and fourth years, respectively.

An estimate of total yearly expenses shows that the average cost to the first-year single student will be approximately $18,485 for the academic year of 1982-1983. Costs for the second-year single student are estimated to be $20,195; for the third-year, $19,375; for the fourth-year, $18,230 and for the fifth-year, $17,250.

Housing

The average cost of rooms in Vanderbilt Hall, the student dormitory, for the academic year 1982-1983 is approximately $2,170 for ten months.

Inquiries regarding University-owned married student housing should be addressed to Harvard University Housing Office, 7 Holyoke Street, Cambridge, Mass. 02138. Frequent shuttle bus service is available between Cambridge and the Medical Area.

Dining Room

Cafeteria dining facilities are available in Vanderbilt Hall on a five-day-a-week, three-meal-a-day basis (September through June), and a five-day-a-week, two-meal-a-day schedule during the summer months. Meal contracts are available at reduced rates; meals may also be purchased on an individual basis.

FINANCIAL AID

The amount of financial aid available at the Harvard School of Dental Medicine is limited. Awards of loan and scholarship funds are based on need as determined by a federally-approved needs analysis system. The school participates in the Federally Insured Student Loan Program and the Federal Health Professions Student Loan Program. In addition, a limited amount of loan and scholarship funds are available through the Dental School and through Harvard University. Work/study funds are also available to eligible students.

Loan funds are also available from several outside agencies. Interest rates and repayment provisions for the various loan programs differ considerably and students should consult the Office of Student Affairs at Harvard School of Dental Medicine before making any commitments.

A list of some agencies offering scholarships and/or loan assistance to dental students is maintained in the Office of Student Affairs.

A course schedule for the Basic Science Core (16 months) is presented below.

YEAR 1

September — December

Physiology 700: Mammalian

Biochemistry 700A: Intermediate metabolism and its controls

Anatomy 708: Histology

Neurobiology 709: Introduction to Nervous System (1st half)

Anatomy 711: Basic Neuroanatomy (2nd half)

Introduction to Dentistry

Clinical Rotations

Oral Biology

January

Oral Biology (continuation)

Biostatistics

Electives

February — May

Anatomy 700: Gross Anatomy

Pharmacology 700

Pathology 700A.0: General Pathology (1st half)

Pathology 700B.0: Immunology & Immunopathology (2nd half)

Oral Biology (conclusion)

Pain control

June

Gerontology
Preventive Dentistry

YEAR 2

September — December

Pathophysiology:
- Cardiovascular
- Gastrointestinal
- Hematology
- Renal
- Reproductive
- Respiratory
- Oral Pathology

January

Pathophysiology:
- Endocrine
- Musculoskeletal

Dental Anatomy
Dental Radiology

A schedule for ICM and MCD periods (17 months) is presented below.

February — May (MCD IA)

(M, W, F) Introduction to Clinical Medicine

(T, TH) Microbiology
Dental Radiology
Dental Anatomy
Photography
Occlusion

June — July (MCD IB)

Endodontics
Operative
Orthodontics
Periodontics
Radiology/Oral Diagnosis
Pain Control

August

Vacation

YEAR 3

September — January (MCD II)

Fixed Prosthetics
Complete Dentures
Operative
Removable Partial Dentures
Endodontics
Pedodontics
Orthodontics
Periodontics
Oral Diagnosis
Oral Surgery/Massachusetts General Hospital Case Presentations

Feburary — July (MCD III)

Same as MCD II plus:
Oral Surgery
Dental Care Administration
Oral Medicine/Oral Oncology
Oral Surgery
Multidisciplinary Clinic
Case Presentation
Advanced Dental Auxiliary Utilization
Behavioral Science

YEAR 4

August — February

Externships:

4 weeks Dental Management Advanced Operative Dentistry
4 weeks Pedodontics
4 weeks Oral Surgery
2 weeks Dental Care Administration
12 weeks Veterans Administration dental clinics
4 weeks Vacation
Case Presentations
Comprehensive Care Clinic

March — June

Electives

YEAR 5

July — June

Health Care Delivery and Research Track

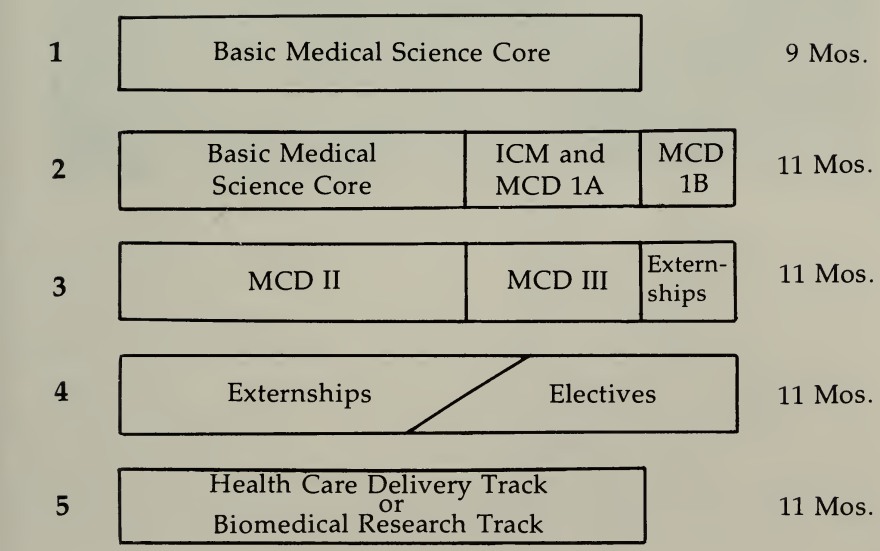
or

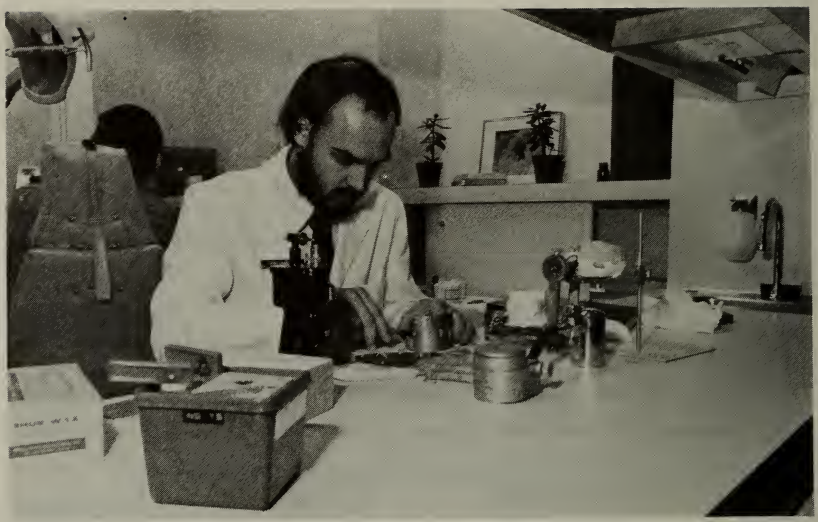
Biomedical Research Track

or

Begin postdoctoral specialty
training program

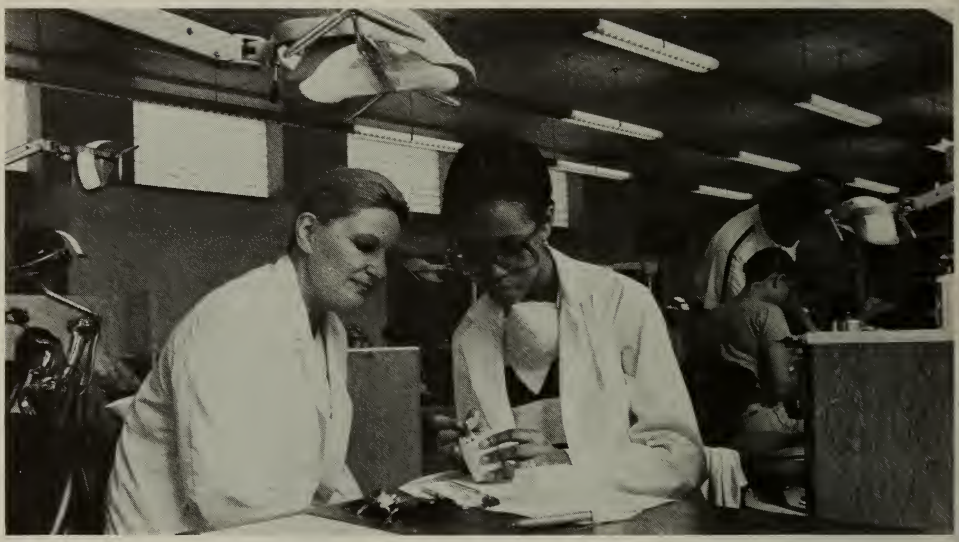
OVERVIEW OF 5 YEAR CURRICULUM





Colleges Attended by Members of Classes of 1981-1986

Barnard College
Boston College
Boston University
Brandeis University
Brown University
California Institute of Technology
Cambridge University, England
California, University of
— Berkeley
— Davis
— Irvine
— Los Angeles
— San Diego
Carleton College
Case Western Reserve
City Univ. of New York
— Brooklyn College
— Hunter College
— Queens College
Clark University
Colby College
Columbia University
Cornell University
Denver, University of
Emory University
Fairfield University
Fordham University
Georgetown University
Hartford, University of
Harvard College
Johns Hopkins University
Lehigh University
Marquette University
Massachusetts Institute of Technology
Michigan, University of
— Ann Arbor
Midwestern State University
Mundelein College
New College of the University of South Florida
New Hampshire, University of
New York University
Niagara University
Northeastern University
Northwestern University
Oregon, University of
Pacific, University of the
Pennsylvania, University of
Pittsburgh, University of
Providence College
Purdue University
Rensselaer Polytechnic Institute
Rochester, University of
Rutgers University
San Diego State University
Scranton, University of
Southern California, University of
Southwestern at Memphis
Stanford University
State Univ. of New York
— Albany
— Binghamton
— Buffalo
— College of Environmental Science and Forestry
Texas, University of
— Austin
Tougaloo College
Trenton State College
Tufts University
Union College
Utah, University of
Washington, University of
Washington University
Wellesley College
Williams College
Xavier University of Louisiana



Notice

The statements in this pamphlet are for information only and do not constitute a contract between the student and the Harvard School of Dental Medicine. The School reserves the right to change any policy, requirement, or fee at any time during the student's enrollment.

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